



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|--------------------|
| 10/820,692 | 04/08/2004 | Robert L. Heimann | EL021RH-3 | 8536 |
| 7590 | 12/29/2005 | | EXAMINER | |
| MICHAEL K. BOYER ORSCHELN MANAGEMENT CO 2000 US HWY 63 SOUTH MOBERLY, MO 65270 | | | | LAVILLA, MICHAEL E |
| | | ART UNIT | PAPER NUMBER | 1775 |

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/820,692 | HEIMANN ET AL. | |
| | Examiner | Art Unit | |
| | Michael La Villa | 1775 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 October 2005.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 3,12 and 18 is/are allowed.

6) Claim(s) 1,2,4-11,13-17,19 and 20 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 08 April 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:
 2. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
 3. Claims 1, 2, 4-11, 13-17, 19, and 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding Claims 1, 2, 5-10, 13-17, and 19, it is unclear where applicant teaches the claimed method as applied to a substrate, as opposed to the electrically conductive surface of a substrate. Regarding Claim 20, it is unclear where applicant teaches the listed substrates with chromated surfaces. Since the subject matter of these claims as relates to these issues does not otherwise appear to reasonably have been conveyed to one of ordinary skill in the art as having been invented by applicant at the time of filing, rejection is appropriate. Regarding Claim 4, the cited portion teaches sizes from 10 to 50 nm, not "less than about 50 nm." Regarding Claim 10, the cited portion teaches "about 1 to 15 wt. %," not "greater than about 1 weight percent." Regarding Claim 11, the cited portion refers to enhancing chromated surfaces. However, it is unclear in what manner this enhancement is contemplated. For example, this

citation could be interpreted to mean enhancement by co-deposition, as opposed to by the suggested successive layers. In addition, there is no teaching of chromated surfaces in conjunction with specific substrates as in Claim 20. Regarding Claim 16, the cited portion refers to a zinc core, not die cast zinc. Regarding Claim 19, it is unclear what is the basis for concluding that the stated ratio of "1:3" in Tables 10 and 11 is a molar ratio.

Response to Amendment

- I. In view of applicant's arguments, applicant traverses the "incorporation by reference" objection of the Office Action mailed on 2 June 2005. Objection is withdrawn.
- II. In view of applicant's arguments and amendments, applicant traverses the objection to the Specification for failure to substitute docket numbers with patent application numbers and issued patent numbers of the Office Action mailed on 2 June 2005. Objection is withdrawn.
- III. In view of applicant's arguments and filed terminal disclaimer, applicant traverses the double patenting rejection of the Office Action mailed on 2 June 2005. Rejection is withdrawn.
- IV. In view of applicant's arguments and amendments, applicant traverses the section 112, first paragraph rejection of the Office Action mailed on 2 June 2005. Rejections with respect to Claims 12 and 13 are withdrawn. The other rejections, as well as new rejections, are set forth above for the reasons given.

- V. In view of applicant's arguments and amendments, applicant traverses the section 112, second paragraph rejection of the Office Action mailed on 2 June 2005. Rejections are withdrawn.
- VI. In view of applicant's arguments and amendments, applicant traverses the section 102 and 103 rejections over McGowan of the Office Action mailed on 2 June 2005. Rejection is withdrawn.
- VII. In view of applicant's arguments and amendments, applicant traverses the section 102 rejection over Bartak of the Office Action mailed on 2 June 2005. Rejection is withdrawn.

Allowable Subject Matter

- 4. Claims 3, 12, and 18 are allowed. Applicant's terminal disclaimer vitiates the double patenting rejection of the Office Action mailed on 2 June 2005, rendering the claims allowable over the prior art.

Conclusion

- 5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
- 6. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.
8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael La Villa
22 December 2005



MICHAEL E. LAVILLA PH.D.
PRIMARY EXAMINER